CLAIMS

1. A method of designing a circuit board, the method comprising the steps of:

transmitting a user interface application from a server machine to a client machine via a publicly-accessible global network,

receiving user-supplied circuit board design data input into the client machine,

retrieving circuit board manufacturing cost data from a manufacturing cost database in response to the user-supplied circuit board design data, and

updating the user interface application on the client machine based on the circuit board manufacturing cost data.

2. The method of claim 1, wherein the transmitting step includes transmitting the user interface application to the client machine via the publicly-accessible global network in response to a user-supplied request received by the server machine via the publicly-accessible global network.

3. The method of claim 1, wherein the transmitting step includes transmitting the user interface application from the server machine to the client machine via the Internet.

4. The method claim 1, wherein the transmitting step includes transmitting a manufacturing cost database with the user interface application from the server machine to the client machine via the publicly-accessible global network.

5.   The method of claim 1, wherein the receiving step includes receiving user-supplied circuit board design data via an input device of the client machine.

6.   The method of claim 1, wherein the receiving step includes receiving user-supplied circuit board design data via the publicly-accessible global network.

7.   The method of claim 1, wherein the retrieving step includes retrieving circuit board manufacturing cost data from a manufacturing cost database stored on the client machine in response to the user-supplied circuit board design data.

8.   The method of claim 1, wherein the retrieving step includes retrieving the circuit board manufacturing cost data, via the publicly-accessible global network, from a manufacturing cost database stored on the server machine in response to the user-supplied circuit board design data.

9.   The method of claim 1, wherein the retrieving step includes retrieving the circuit board manufacturing cost data from the server machine via the publicly-accessible global network.

10.   The method of claim 1, further comprising the step of retrieving circuit board manufacturing capability data from a manufacturing capability database in response to the user-supplied circuit board design data.

11.   The method of claim 10, further comprising the step of updating the user interface application on the client machine based on the circuit board manufacturing capability data.

5   12.   The method of claim 11, wherein updating the user interface application on the client machine based on the circuit board manufacturing capability data includes displaying a traffic light image to a user.

13.   The method of claim 1, further comprising the step of

10   determining a per-circuit-board manufacturing cost value based on the circuit board manufacturing cost data.

14.   The method of claim 13, wherein the determining step includes determining a per-circuit-board setup cost value and a per-circuit-board run cost

15   value.

15.   The method of claim 14, wherein determining the per-circuit-board setup cost value and the per-circuit-board run cost value includes determining a per-circuit-board setup cost value and a per-circuit board-run cost value for each work

20   center of a circuit board manufacturing process in response to the user-supplied circuit board design data.

16.   The method of claim 13, wherein the updating step includes displaying the per-circuit-board manufacturing cost value to the user.

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17.   The method of claim 1, further comprising determining a tooling cost value in response to the user-supplied circuit board design data.

18.　The method of claim 17, wherein the determining step includes determining a tooling cost value based on the circuit board manufacturing cost data.

5　　19.　The method of claim 1, further comprising the steps of:

determining a user selected-portion of the user interface application,

retrieving a circuit board design image based on the user selected-portion, and

10　　displaying the circuit board design image on the client machine to the user.

20.　A method of designing a circuit board, the method comprising the steps of:

15　　transmitting a user interface application from a server machine to a client machine via a publicly-accessible global network,

receiving user-supplied circuit board design data input into the client machine,

retrieving circuit board manufacturing capability data from a 20　manufacturing capability database in response to the user-supplied circuit board design data, and

updating the user interface application on the client machine based on the circuit board manufacturing cost data.

21. The method of claim 20, wherein the transmitting step includes transmitting the user interface application to the client machine via the publicly-accessible global network in response to a user-supplied request received via the publicly-accessible global network.

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22. The method of claim 20, wherein the transmitting step includes transmitting the user interface application from the server machine to the client machine via the Internet.

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23. The method claim 20, wherein the transmitting step includes transmitting a manufacturing capability database with the user interface application from the server machine to the client machine via the publicly-accessible global network.

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24. The method of claim 20, wherein the receiving step includes receiving user-supplied circuit board design data via an input device of the client machine.

25. The method of claim 20, wherein the receiving step includes

20 receiving user-supplied circuit board design data via the publicly-accessible global network.

26. The method of claim 20, wherein the retrieving step includes retrieving circuit board manufacturing capability data from a manufacturing capability

25 database stored on the client machine in response to the user-supplied circuit board design data.

27. The method of claim 20, wherein the retrieving step includes retrieving circuit board manufacturing capability data, via the publically-accessible global network, from a manufacturing capability database stored on the server machine based on the user-supplied circuit board design data.

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28. The method of claim 27, wherein the retrieving step includes retrieving the circuit board manufacturing capability data from the server machine via the publicly-accessible global network.

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29. The method of claim 20, wherein the updating step includes displaying a traffic light image to a user.

30. The method of claim 20, further comprising the steps of:

determining a user selected-portion of the user interface

15 application,

retrieving a circuit board design image based on the user selected-portion, and

displaying the circuit board design image on the client machine to the user.

31.   A method of designing a circuit board, the method comprising the steps of:

transmitting a user interface application from a server machine to a client machine via a publicly-accessible global network,

5   receiving user-supplied circuit board design data input into the client machine,

retrieving circuit board manufacturing cost data from a manufacturing cost database in response to the user-supplied circuit board design data,

10   retrieving circuit board manufacturing capability data from a manufacturing capability database in response to the user-supplied circuit board design data, and

updating the user interface application on the client machine based on at least one of the circuit board manufacturing cost data and the circuit board

15   manufacturing capability data.

32.   The method of claim 31, wherein the transmitting step includes transmitting the user interface application to the client machine via the publicly-accessible global network in response to a user-supplied request received by the

20   server machinevia the publicly-accessible global network.

33.   The method of claim 31, wherein the transmitting step includes transmitting the user interface application from the server machine to the client machine via the Internet.

34.   The method claim 31, wherein the transmitting step includes transmitting a manufacturing cost database and a manufacturing capability database from the server machine to the client machine via the publicly-accessible global network.

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35.   The method of claim 31, wherein the receiving step includes receiving user-supplied circuit board design data via an input device of the client machine.

10   36.   The method of claim 31, wherein the receiving step includes receiving user-supplied circuit board design data via the publicly-accessible global network.

37.   The method of claim 31, wherein retrieving circuit board
15   manufacturing cost data includes retrieving circuit board manufacturing cost data from a manufacturing cost database stored on the client machine in response to the user-supplied circuit board design data.

38.   The method of claim 31, wherein retrieving circuit board
20   manufacturing cost data includes retrieving circuit board manufacturing cost data from a manufacturing cost database stored on the server machine in response to the user-supplied circuit board design data.

39.   The method of claim 31, wherein retrieving circuit board
25   manufacturing cost data includes retrieving the circuit board manufacturing cost data from a manufacturing cost database via the publicly-accessible global network

40.   The method of claim 31, wherein retrieving circuit board manufacturing capability data includes retrieving circuit board manufacturing capability data from a manufacturing capability database stored on the client machine in response to the user-supplied circuit board design data.

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41.   The method of claim 31, wherein retrieving circuit board manufacturing capability data includes retrieving circuit board manufacturing capability data from a manufacturing capability database stored on the server machine in response to the user-supplied circuit board design data.

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42.   The method of claim 31, wherein retrieving circuit board manufacturing capability data includes retrieving the circuit board manufacturing capability data from a manufacturing capability database via the publicly-accessible global network   .

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43.   The method of claim 31, wherein updating the user interface application on the client machine includes displaying a traffic light image to a user.

44.   The method of claim 31, further comprising determining a per-

20   circuit-board manufacturing cost value based on the circuit board manufacturing cost data.

45.   The method of claim 44, wherein the determining step includes determining a per-circuit-board setup cost value and a per-circuit-board run cost

25   value.

46. The method of claim 45, wherein determining a per-circuit-board setup cost value and a per-circuit-board run cost value includes determining a per-circuit-board setup cost value and a per-circuit-board run cost value for each work center of a circuit board manufacturing process in response to the user-supplied circuit board design data.

47. The method of claim 44, wherein the updating step includes displaying the per-circuit-board manufacturing cost value to the user.

48. The method of claim 31, further comprising determining a tooling cost value in response to the user-supplied circuit board design data.

49. The method of claim 48, wherein the determining step includes determining a tooling cost value based on the circuit board manufacturing cost data.

50.   An article comprising a computer-readable signal-bearing medium having therein a plurality of instructions which, when executed by a processor, cause the processor to:

display a user interface application to a user of a client

5   machine,

retrieve circuit board manufacturing cost data from a manufacturing cost database in response to user-supplied circuit board design data input into the client machine,

retrieve circuit board manufacturing capability data from a

10   manufacturing capability database in response to the user-supplied circuit board design data, and

update the user interface application on the client machine based on at least one of the circuit board manufacturing cost data and the manufacturing capability data.

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51.   The article of claim 50, wherein the plurality of instructions, when executed by the processor, further cause the processor to retrieve the circuit board manufacturing cost data from a manufacturing cost database via a publicly-accessible global network.

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52.   The article of claim 50, wherein the plurality of instructions, when executed by the processor, further cause the processor to retrieve the circuit board manufacturing capability data from a manufacturing capability database via the publicly-accessible global network.